TABLE 1.—*Averages, departures, and extremes of atmospheric pressure at sea level, North Pacific Ocean and adjacent waters, January, 1932, at selected stations*

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	*Inch*	*Inches*		*Inches*	
Point Barrow [1] [3]	30.17	+0.09	30.80	5	29.20	12
Dutch Harbor [1]	29.78	+0.20	30.34	[4] 10	28.82	21
St. Paul [1]	29.73	+0.10	30.18	9	29.14	28
Kodiak [1]	29.75	+0.16	30.52	30	28.98	9
Juneau [2]	29.81	−0.07	30.69	30	29.03	5
Tatoosh Island [2] [5]	30.04	+0.06	30.67	22	29.34	12
San Francisco [2] [5]	30.16	+0.05	30.49	17	29.58	31
Mazatlan [1] [3]	29.97	−0.05	30.04	8	29.90	[4] 1
Honolulu [2]	30.01	+0.01	30.15	25	29.80	31
Midway Island [1]	29.94	−0.09	30.36	23	29.40	14
Guam [1]	29.84	−0.06	29.96	20	29.68	[4] 4
Manila [1]	29.95	−0.03	30.06	10	29.86	[4] 3
Naha [1] [3]	30.23	+0.15	30.40	11	30.02	31
Chichishima [1]	30.12	+0.11	30.44	21	29.90	1
Nemuro [1] [3]	29.99	.....	30.48	20	29.62	3

[1] Data based on 1 daily observation only, with departures computed from best available normals related to time of observation.
[2] A. m. and p. m. observations.
[3] For 24 to 29 days, with missing dates distributed over the month.
[4] And on other dates.
[5] Corrected to 24-hour mean.

Cyclones and gales.—General cyclonic activity slackened on the North Pacific during January, 1932, as compared with that of the preceding month. The result was a lessened number of stormy days, and of days with gales of the higher wind velocities (11 to 12). Among the many storm reports contributed by seamen, a considerable percentage of the whole showed gales that did not exceed force 8. The month as a whole must be considered fairly stormy, however, and it may be noted that gales were almost as frequent on the central and southern trans-Pacific routes as they were along the northern, which is a rather unusual condition.

The dates of greatest storm intensity, as indicated by reports of maximum-force gales, were those of the 2d–3d, the 13th, and the 20th and 21st. On the 2d–3d a cyclone that had moved eastward from northern Japan intensified until central pressures were about 29 inches, and caused westerly gales of force 11 near 38° N., 155° E. On the 13th, in connection with an energetic cyclone that moved into the Aleutian region from the Okhotsk Sea, a gale of force 11 was experienced south of the western Aleutians. On the 20th and 21st cyclonic conditions, spreading eastward, covered a great area in northern mid-ocean, during the prevalence of which southeasterly gales of force 11–12 were reported near 40° N., 175° W., and 46° N., 160° W., and gales of lesser force over practically the entire extent of the LOW.

Gales of force 9 and 10 were fairly frequent during several intensifications of the Aleutian cyclone. The table of gales, however, sufficiently indicates their distribution.

About January 10th a LOW with a tropical characteristics formed south of Midway Island and spreading rapidly northward, caused fresh north and northeast gales over a considerable stretch of the sea. It early established contact through a long trough with the LOW over the eastern Aleutians, but it continued active in the neighborhood of Midway Island until the 14th, on which day the Midway pressure dropped as low as 29.40 inches. The LOW thereafter receded rapidly northward.

Owing to the strength of the Asiatic HIGH, the northeast monsoon attained the strength of a moderate gale on several days, particularly from the 8th to 11th, between Luzon and the Nansei Islands.

East of the Hawaiian Islands, locally intensified trades which reached the force of a fresh gale, occurred on the 8th and from the 20th to 24th.

Off the California coast fresh to strong gales occurred on the 11th to 14th and on the 19th, during southward incursions of the Aleutian LOW, or westward expansions to the coast of extensive LOWS over the United States.

In the Gulf of Tehuantepec northers of fresh gale force were encountered on the 9th and 27th, and of moderate gale force on the 20th and 21st.

Conditions at Honolulu.—The prevailing wind at Honolulu was from the east, with a maximum velocity of 28 miles from the same direction on the 11th. This January was the warmest there since 1889.

Fog.—From the 3d until the 10th fog formed over a considerably region between 160° west longitude and the American coast, 30° and 50° north latitude, and on a few scattered days thereafter.

Haze.—"Very heavy haze due to volcanic dust from Acatenango and Fuego that settle on the ship and surrounding waters," was reported by the American steamship *Knoxville City*, while in the Gulf of Tehuantepec on the 21st. Similar observances were made by other vessels crossing the gulf on the 22d and 23d.

SEA-SURFACE TEMPERATURE OBSERVATIONS, JANUARY, 1932

By GILES SLOCUM

A change in the general plan of presenting sea-surface temperature data is initiated in this issue of the REVIEW. During the calendar year 1931 the REVIEW carried data for 1930, the material appearing in the issues dated a year after the months in which the observations were made. Hereafter the data will be for the current month and year.

The method of publishing a year late had the advantage of presenting complete or final figures. The new plan requires the omission of the relatively few reports which do not reach the files in time to be included. Final means, embodying all available material will, however, be computed and published after the close of each year in connection with a brief annual summary.

The disadvantage involved in publishing preliminary values subject to later slight revisions is not vital. Preliminary values will be found to vary ordinarily by not more than three-tenths of a degree from the final figures. Continuing discrepancies of this order would doubtless be significant in the areas from which these values are gathered, since the monthly and annual ranges are small, but such differences as will appear between the preliminary and final figures will be in the nature of accidentals and will therefore be of minor importance for purposes other than refined correlation computations, for which the corrected annual summaries should be used.

An exception in the proposed method of publication is made in the case of the 1931 data, which have not yet been presented in any form. To fill the gap between 1930 and 1932, resulting from this change of plan, the data for 1931 are presented in the present issue, summarized for the whole year. The values for December, 1931, necessarily remain provisional but they will be revised as soon as practicable.

A disadvantage of the plan of publishing a year late (followed in 1931) was that the data were then too old to be of interest in connection with current weather. It is primarily to eliminate this disadvantage that the present plan, which will place the figures in the hands of the public within 90 days after the close of each month, is inaugurated.

TABLE 1.—*Preliminary mean sea-surface temperatures (°F.) in the Caribbean Sea and Straits of Florida, January, 1932*

Quarter	Period	Caribbean Sea			Straits of Florida		
		Mean	Departure from 13-year mean (1920–1932)	Change from preceding month	Mean	Departure from 13-year mean (1920–1932)	Change from preceding month
		°F.	°F.	°F.	°F.	°F.	°F.
I		80.0	+0.6	----------	77.3	+2.1	----------
II		79.5	+0.2	----------	76.0	+1.0	----------
III		79.6	+0.6	----------	76.7	+1.8	----------
IV		79.5	+0.8	----------	76.5	+2.0	----------
	Month	79.6	+0.5	−1.0	76.6	+1.7	−1.8

Table 1 shows the preliminary mean temperatures in the Caribbean Sea and the Straits of Florida for January, 1932.

CARIBBEAN SEA

The Caribbean Sea is defined as the area included between the American Continents on the south and west and the Greater Antilles and outermost Lesser Antilles on the north and east. The Mona Passage, the Windward Channel south of 20° N., and the Yucatan Channel west from Cape San Antonio to the eighty-fifth meridian, north on this meridian to 22° N., west to 87° W., and south to the Yucatan Peninsula, are included.

January, 1932, was a warm month in the Caribbean Sea, being the twenty-third consecutive month with a temperature at or above the 13-year mean (1920–1932).

STRAITS OF FLORIDA

The Straits of Florida data refer to the western part of the Straits area, that bounded on the east by the eightieth meridian, on the north by the twenty-fifth parallel, on the west by the eighty-fourth meridian, and on the south by the Cuban coast.

The month of January, 1932, was the warmest January of record (1920–1932), being 0.8 above the previous warmest which occurred in 1924 and 1925, in both of which years the mean January temperature was 75.8° in the Straits of Florida.

SUMMARY OF SEA-SURFACE TEMPERATURE DATA FOR 1931

By GILES SLOCUM

The data for the Caribbean Sea and the Straits of Florida for 1931 are here summarized, as a whole, for reasons discussed in this issue under the caption, "Sea-Surface Temperature Observations, January, 1932."

In the accompanying table the values for the first 11 months of 1931 are final. Those for December are based on about 97 per cent of the data that is expected to be available. Corrected values for this month will be given later.

CARIBBEAN SEA

The monthly mean temperature of the Caribbean Sea was higher than the average throughout 1931. The means for January, March, April, May, June, July, and August were the highest of record for these months during the 12 years for which adequate data have been collected and analyzed, and so also were their departures from the 12-year means. The previous greatest positive departures, 0.8°, occurred in September and October, 1927, and December, 1930.

May was the most extreme month in 1931. This usually is a midspring month, characterized as it progresses by a rapid rise in temperature in the Caribbean Sea, but not by relatively high temperatures in the course of the annual seasonal march, and it usually is nearly as cool as December, a late autumn month. May, 1931, had a mean temperature of 82.4°, which is 1.8° above the May mean. Since 1920, no other May or June was as warm, and only one July, which was slightly warmer. The average for this month, May, 1931, was indeed higher than is usual for August, the month just preceding the normally warmest of the year. No month in the years 1920 to 1923, inclusive, had a temperature exceeding that of this May.

February, September, and October, 1931, were each once exceeded in temperature by the same respective months in previous years. November and December of this year were not greatly warmer than average.

The surface water of the Caribbean Sea was extremely warm throughout the winter of 1930–31, and the spring rise in temperature, while more rapid than usual, was, by reason of the high temperatures which already prevailed, not different in nature from the rise in other years. The change from the high, but not unprecedented temperature of February, 1931, to the conspicuously extreme anomalous condition in May, took place gradually without remarkable interruptions or accelerations.

The spring temperatures of 1931 were so high that midsummer conditions prevailed for half the year instead of approximately a fourth to a third, as in the usual year. The departures from the mean for the months after May, 1931, were progressively smaller through the summer. While the decrease in magnitude of these departures did not reverse or interrupt the usual seasonal march of progressively warmer months through the summer until the warmest month, September, it did conspicuously flatten the curve representing the march of temperature during the year as compared with that for other years.

By autumn, the extreme thermal abnormality of the spring and early summer months of 1931 had somewhat moderated. Since a diminishing positive anomaly persisted, however, through the fall months, the progression of the temperature curve was much like the normal seasonal march during these final months of the year.

Considering the extreme temperature abnormality of the spring of 1931 from still another angle, that of the relative size of the temperature anomaly in comparison with the annual range, the May, 1931, anomaly was over two-fifths of the mean annual change from winter to summer, which is only 4.3°. The departures for April, June, and July were also conspicuously large, being over a third of the mean annual range.

STRAITS OF FLORIDA

In the Straits of Florida, the first four months of 1931 continued a period, begun in December, 1930, of relatively far subnormal temperatures. Subsequently, the abnormal warmth of the Caribbean Sea appears to have spread into this region. May, June, and November, 1931, were somewhat cooler than the seasonal average, but July, August, September, October, and December were each warmer than their 12-year means—the latter indeed being the warmest December in the period of record. In this respect, the warmth of this month resembled the extreme positive anomalies found in the